

Serial No. 09/807,165
Art Unit: 1714
Response dated February 17, 2006
Reply to Office Action of October 26, 2005

Remarks

The foregoing amendments and following remarks are responsive to the October 26, 2005 Office Action. Applicants respectfully request reconsideration.

Status of the Claims

Claims 6, 15-16 and 25 are amended. Claims 13-14 are cancelled. Claims 1-5, 7, 10 and 12 were cancelled previously. Claims 26-28 are added. Claims 6, 8-9, 11 and 15-28 are pending.

Support for Amendments to the Claims/Added Claims

Support for amended Claims 6, 15-16 and 25 and added Claims 26-28 is found throughout the specification and particularly in the Examples on page 9, line 17 to page 14 line 6. No new matter is added.

Allowable Subject Matter

In the November 14, 2003 Office Action, the Examiner indicated Claims 13-14 would be allowable if rewritten. Claims 13-14 are cancelled herein and Applicants have essentially included the subject matter of Claims 13 and 14 in amended Claims 6, 15 and 25.

Rejections under 35 U.S.C. § 102

Claims 6, 8-9, 11, 15-19 and 21-23 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,318,733 (Carduck). Claims 6, 8-9, 11, 15-20 and 25 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2005/0006627 (Semen). Claims 6, 8-9, 11, 15-19 and 25 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,723,522 (Bergmann). The references are summarized below.

The Carduck reference

Carduck relates to compacted granules to be used in laundry detergents and detergent concentrates. A premix consisting at least partly of solid, fine-particle standard detergent ingredients (liquid constituents are optionally added) is combined with a plasticizer or lubricant. The premix is extruded through a perforated die under a

pressure from about 25 bar to about 200 bar to form plasticized strands. Plasticizers and lubricants include preparations based on surface-active components and/or water-soluble polymer compounds, including non-ionic surfactants used in detergents.

The Semen reference

Semen relates to granules formed from a paste comprising (a) a sterically hindered phenol antioxidant in combination with optional additives, which may include fatty acid metal salts (soaps), and similar compounds, including magnesium, tin, zinc or calcium salts; and (b) an organic processing agent comprising a friability reduction agent (alcohol) and may include an organic solvent (methylene chloride). The dried granules, which may be spherical in shape (agglomerates), consist essentially of the additive system comprising at least one sterically hindered phenol antioxidant. The granules may be incorporated into an organic polymer, for example, polyvinyl chloride. The dried granules have an average diameter of from about 1 mm to about 5 mm.

The Bergmann reference

Bergmann relates to thermoplastic materials, including polyvinylchlorides and polyvinylidene chlorides, modified with cellulose or modified cellulose fibers. The thermoplastic materials are modified by combining an unmodified polymer (polypropylene) with a fiber-containing plastic granulate (containing rayon/viscose fibers and polypropylene) and extruding into a corresponding product. The length of the granulate ranges between 1 mm and 4 mm and the diameter between 1 mm and 3 mm.

Applicant's Invention

The invention relates to additives for processing thermoplastic polymer materials, for example, polyvinylchloride, which may require stabilization protection against degradation from heat during processing or in use. Advantageously, the heat-stabilizing granules of the invention provide for the absence of dust and are in a convenient form for handling and transport.

Claim 6 (from which Claims 8-9 and 11 depend) relates to an additive composition for thermoplastic polymer materials, comprising granules consisting essentially of a component selected from the group consisting of a calcium soap, a zinc

soap and mixtures thereof, wherein the granules are substantially spherical and have a diameter of from 0.5 to 5 mm. Claim 15 (from which claims 16-19 and 21-23 depend) relates to a granular composition for thermoplastic polymer materials prepared by a process comprising the steps of: (a) providing cylindrical granules of a composition consisting essentially of a component selected from the group consisting of a calcium soap, a zinc soap and mixtures thereof; and (b) spheronizing the cylindrical granules to form substantially spherical granules having a diameter of from 0.5 to 5 mm. Claim 25 relates to a method for stabilizing a thermoplastic polymer composition during processing, comprising: (a) providing a thermoplastic polymer composition; (b) providing a granular composition comprising granules consisting essentially of a component selected from the group consisting of a calcium soap, a zinc soap, and mixtures thereof, wherein the granules are substantially spherical and have a diameter of from 0.5 to 5 mm; and (c) combining the thermoplastic polymer composition and the granular composition prior to processing completion.

None of the references (Carduck, Semen, and Bergmann) discloses granules consisting essentially of a component selected from the group consisting of a calcium soap, a zinc soap, and mixtures thereof. None of the references disclose granules of a composition consisting essentially of a component selected from the group consisting of a calcium soap, a zinc soap and mixtures thereof. In addition, none of the references disclose combining the granules with a thermoplastic polymer composition. Although Semen discloses additives including metal soaps, Semen does not disclose that the metal soaps may be used without a sterically hindered phenol antioxidant for incorporating into an organic polymer.

Since the invention defined by Claim 6, 8-9, 11, 15-19 and 21-23 is not disclosed by Carduck, the invention defined by Claims 6, 8-9, 11, 5-20 and 25 is not disclosed by Semen, and the invention defined by Claims 6, 8-9, 11, 15-19 and 25 is not disclosed by Bergmann, the rejections should be withdrawn. Reconsideration and withdrawal of the rejections are respectfully requested.

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Rejections under 35 U.S.C. § 103(a)

Claims 20 and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Carduck in view of U.S. Patent No. 3,741,703 (Reynolds). Arguments made above with regard to the rejection under 35 U.S.C. § 102(b) based on Carduck are hereby reasserted.

Reynolds relates to an apparatus for making spherical granules from extrusions of wet plastic solid material. The apparatus includes a rotatable flat frictional plate. Particles are spherically shaped by centrifugal and frictional forces.

Reynolds fails to disclose substantially spherical granules having a diameter of from 0.5 to 5 mm. The addition of Reynolds to Carduck fails to cure the deficiencies of Carduck. None of the cited references teach, suggest or provide the motivation to (a) provide granules of a composition consisting essentially of a component selected from the group consisting of a calcium soap, a zinc soap and mixtures thereof, or (b) combine the granules with a thermoplastic polymer composition, and the rejection should be withdrawn.

None of the references of record anticipate or render obvious the invention of Claims 6, 8-9, 11 and 15-28. Reconsideration and withdrawal of the rejections are respectfully requested.

Petition for Extension of Time/Fees

A Petition for a One-month Extension of Time and requisite fee are enclosed. No additional fees are believed due. The Commissioner is authorized, however, to charge (or credit any balance) any fees deemed due (or owing) to Deposit Account No. 50-1177.

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Conclusion

It is respectfully submitted that Claims 6, 8-9, 11 and 15-28 are in condition for allowance. A Notice of Allowance is respectfully requested. If anything further is needed to advance the allowance of this application, the Examiner is urged to contact Applicants' attorney at the telephone number indicated below.

Respectfully submitted,

February 17, 2006

Date



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